



Communicator

March 2013

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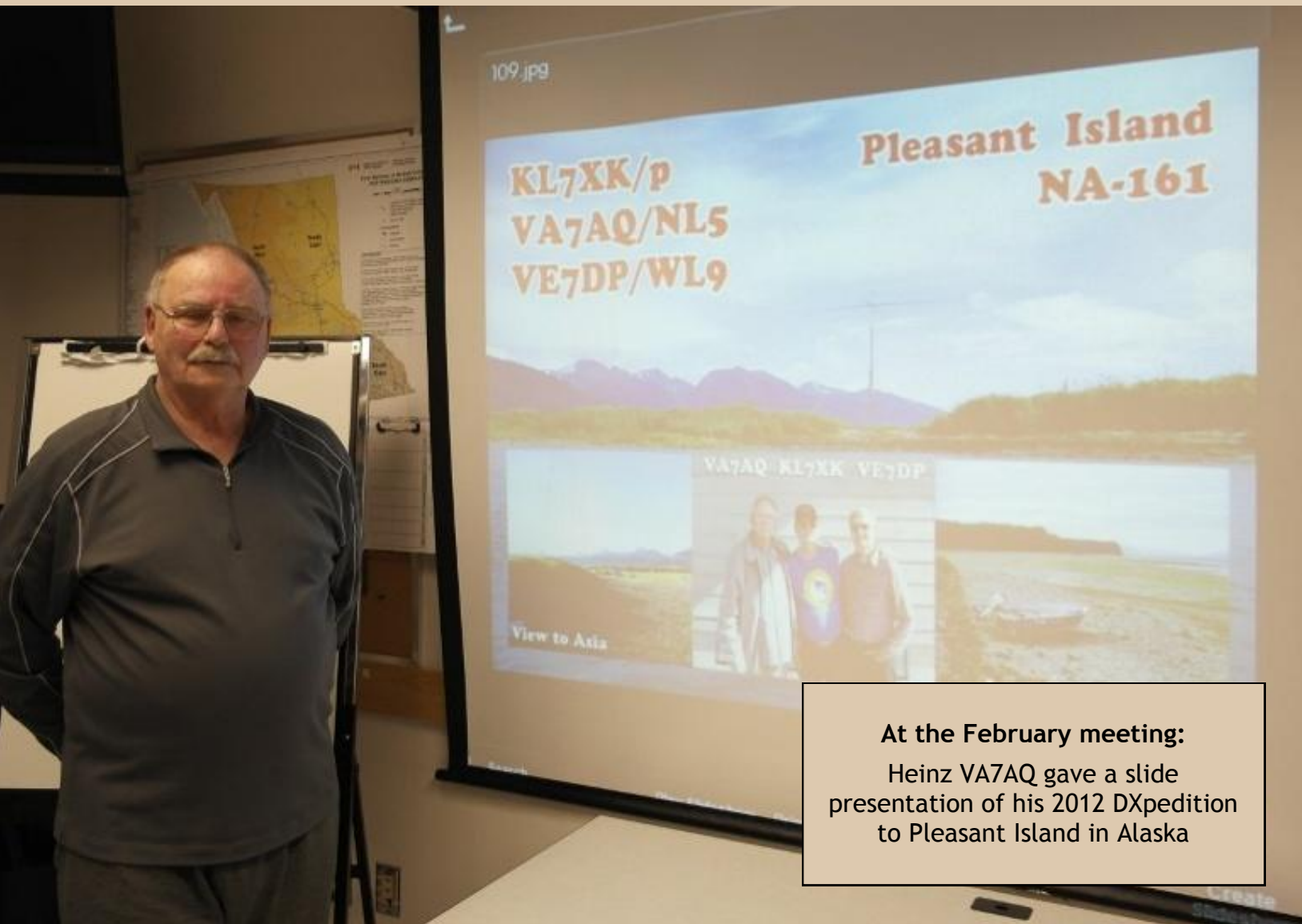
Plus

President's Report

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SEPARS Report

and Much More!



At the February meeting:

Heinz VA7AQ gave a slide presentation of his 2012 DXpedition to Pleasant Island in Alaska



The Communicator



**SURREY
AMATEUR RADIO CLUB**

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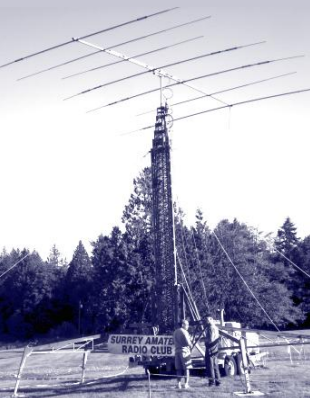
Hui Yee ve7yxx

VIA THE WEB

www.ve7sar.net

The SARC Communicator is published monthly for members of the Surrey Amateur Radio Club.

SARC maintains a website at www.ve7sar.net that includes club history, meetings, news and other information.



Monthly Meeting Minutes

Introduction

The meeting was brought to order at 1900 hr by President John Brodie VA7XB. After reviewing the evening's agenda, John extended congratulations of the club to Bill Gipps VE7XS, who was recently acclaimed as the RAC Director for BC and the Yukon for a two year term starting Jan. 1, 2013.

Membership

Bill Little VA7ZBL announced that a hard copy membership list which includes name, callsign, email and telephone number, is available to members on request. In response to privacy concerns, a watermark has been imbedded in the page effectively precluding scanning of the information for unauthorized purposes.

Treasurer's Report

Scott Hawrelak VE7HA reported the bank balance for both SARC accounts. In reviewing guidelines for the swap meet later in the meeting, John VA7XB suggested that vendors consider making a small donation to the club from the proceeds of their sales. Discussion followed regarding the budget for Field Day and

the need to raise funds so that the club does not incur a loss, as it did last year. It was recognized that the late start in 2012 resulted in excessive food and catering expenses, which will not be repeated this year. However, SARC was successful in obtaining a 2013 Surrey Community Grant for \$825 (\$500 in 2012), which will help defray expenses. Scott gave out name badges to the members who had ordered them earlier.

Raffle & Cruise-in

John VA7XB advised that the club, working with LARA, will be holding a raffle again this year, with the final draw to be held at the Langley Good Times Cruise-in on Sept. 7th. The organizers are looking for ideas for the draw prizes (last year prizes were a \$500 Fairmont Hotels gift certificate, Keg Restaurant gift certificate, and Bluetooth devices for cell phone). We hope to have \$20 books of tickets to distribute at the April meeting.

Foxhunt

Anton James VE7SSD reported that this year's Foxhunt and barbeque will be held on May 18th at Crescent Park in South Surrey. Further information will be forth-

CLUB EXECUTIVE 2013-2013

PRESIDENT

John Brodie VA7XB

VICE PRESIDENT

Brett Garrett VE7GM

SECRETARY

Vacant

TREASURER

Scott Hawrelak VE7HA

DIRECTORS

Kelvin Hall VA7KPH
(SEPARS)

John Schouten VE7TI
(Communicator Editor
& Net Manager)

George Merchant
VE7QH (Repeaters)

Bill Little VA7ZBL
(Membership)

Bill Gipps VE7XS

Rob Gilchrist VE7CZV

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	SEPARS Net	SARC Net
1 st Tuesday	Drew VA7DRW Jay VE7OFH Standby	Drew VA7DRW
2 nd Tuesday	Dixie VA7DIX Alan VA7BIT Standby	Jinty VA7JMR
3 rd Tuesday	Rob VE7CZV	Anton VE7SSD
4 th Tuesday	Peter VE7PGX Dixie VA7DIX Standby	John VA7XB
5 th Tuesday	Jinty VA7JMR	Bill VE7XS
Want a turn at Net Control? Contact the SARC Net Manager ve7ti @ separs.net		

SARC hosts an Amateur Radio net each Tuesday evening at 8 PM. Please tune in to the VE7RSC repeater at 147.360 MHz (+600 KHz), Tone=110.9; also accessible on IRLP node 1980 and Echolink node 496228. On UHF we operate a repeater on 443.775MHz (+5Mhz) Tone=110.9

coming. A couple of members indicated that they would be interested in constructing fox-hunting antennas.

Repeater Report

George Merchant VE7QH described the corrosion problems that have been experienced at the repeater site, as a result of boiler combustion gases spilling into the room, and the steps taken to mitigate both the corrosion and the safety concerns. The ventilation issue has been resolved temporarily by blocking the exterior door open, while a more permanent solution is being sought. Both Surrey Fire and the building owner are now aware of the problem and are working to fix it. Cleaning of connections and changing the repeater output to a different subaudible tone than the input appear to have fixed the interference experienced over the past months. A sealed battery has also been installed at the site for power backup to be available for the few seconds before the building UPS kicks in, in the event of a power failure. George summarized a meeting between the SARC executive and Surrey Fire, at which time a draft memorandum-of-understanding outlining the mutual rights and obligations of SARC and the City of Surrey was put forward for consideration. At this meeting, the corrosion/ventilation issue was discussed and assurances provided by Surrey Fire that they will be tracking the situation closely to ensure a professional and satisfactory resolution. Agreement was also reached that the former repeater site could be retained (without Internet) as backup for the current one, and equipment may be left in place for the time being.

March Meeting

The featured presenter will be John White VA7JW, describing short and stealth antennas for the real-estate challenged members.

Operator Training

Brett Garrett VE7GM reviewed the success of the recent training event, which was the CQ WPX RTTY contest held the weekend of Feb. 2/3 in which 4 trainees plus 2 mentors participated. Congratulations were extended to the trainees, most of whom were able to make the leap to "run" mode and increased contact rates significantly. One operator made 114 contacts/hr over a 10-minute period and the others achieved 60-70/hr for longer periods. The next training event will be either the ARRL DX SSB contest on March 1/3 or the CQ WPX SSB contest on March 29/31 - members should stay tuned for further information. It was noted that these training events are considered mandatory for those wishing to operate at Field Day, especially as the use of the N1MM logging software requires familiarization.

Field Day

For Field Day (June 21-23) Brett VE7GM reiterated that the club is again aiming for a winning score, with the organizing group meeting bi-weekly to work toward this objective. A dry run is proposed for May 4/5 weekend, to coincide with several QSO Party events, for which we will be setting up radios to test out equipment and procedures. Volunteers are needed for various activities, as follows:

1. Someone to locate a simple 6 m beam we can borrow for both Dry Run and Field Day. Heinz VA7AQ offered the use of his 6m beam and Kelvin VA7KPH and Mike VE7ACN volunteered to assist in taking it down from Heinz's tower.
2. Someone to locate or construct a small, hand-held Satellite station (VHF/UHF) we can use for satellite or International Space Station contacts.
3. Someone who has some influence with a company in the business of supplying portable sanitation stations ("porta-potti") who can swing us a deal (as in "free loan") for Field Day.
4. First Aid volunteers (we need enough volunteers to cover Dry Run from 0400 Saturday to 0200 Sunday, and Field Day for 11:00 Friday to 15:00 Sunday).
5. Site Safety Officer (takes responsibility for site safety for both Dry Run and Field Day).
6. Someone to act as additional spare CW contestor. (We can provide N1MM training, but you'll require contest experience in running mode and ability to handle a six-hour shift.)
7. Someone to lead fund-raising dedicated to covering FD expenses. (Last year we had a deficit, a situation we intend to avoid this year.)

Featured Presentation

After a break for coffee, Heinz VA7AQ gave a slide presentation of his 2012 DXpedition to Pleasant Island in Alaska, which stimulated lots of questions about the experience and about the IOTA (Islands-on-the-Air) program.

The meeting was concluded with an in-house swap meet. Judging by the number of happy vendors and purchasers, the event was considered a success.

The meeting was adjourned at approx. 2100 hr.

Recorded by John VA7XB

DOWN THE LOG...

SARC Monthly Meetings

2nd Wednesday (Sept-Jun)
1900 hrs local at the Emergency Management BC PREOC,
14275 96th Avenue, Surrey, BC

Weekly Club Breakfast

Friday at 0800 local
ABC Country Restaurant at
600 - 7380 King George Blvd.
Surrey

SARC Net

Tuesday at 2000 hrs local
on 147.360 MHz (+) Tone-110.9

SEPARS Net

Tuesday at 19:30 hrs local
on 147.360 MHz (+) Tone-110.9

Announcements & News

SEPARS Monthly Workshop
Third Thursday, 1900-2130 local
Rm. 214, 13569 - 76th Avenue,
Surrey.

SEPARS Training

Fourth Saturday, 0830 local,
Firehall #1, 88 & 132nd Street,
Surrey

On the Web ve7sar.net

Between newsletters, watch your e-mail for announcements of events, monthly meetings and training opportunities. These announcements can also be found on our web page, or via:

Twitter
[@ve7sar](https://twitter.com/ve7sar)

Photos
Web Albums

Next Meeting: Small and Stealth Antennas



Whether you live in an urban or suburban development, it can be difficult to be a radio amateur and stay on good terms with your neighbours. Times have changed since the days when power and telephone cables were routed overhead on poles, every house had a large H or X antenna for TV reception, and a ham antenna would go largely unnoticed - or at least, not make the skyline look any worse than it did already. Nowadays, phone and power lines are buried, and most houses have nothing more in the way of antennas than a small satellite dish, so an elevated dipole, full-sized vertical or tower and beam would stick out like a sore thumb. Your housing development may have restrictions on the types of antenna you are allowed to have, or you may simply wish to avoid being the person who spoils the look of the neighbourhood by putting up something that most non-hams will find visually offensive.

The more people value the look of a neighbourhood and spend time and money making their home and garden look nice, the more they are likely to object to anything that spoils the view. Good neighbourliness is not the only reason for wanting to avoid conspicuous antennas. If you live in an apartment or a small town house with no garden, outside antennas may simply not be possible. But all is not lost. The solution is to restrict yourself to antennas that are small, invisible or hard to see. This is stealth ham radio.

Contrary to popular belief, an inability or desire not to have large, high antennas does not mean that you should take up a different hobby. Sure, a beam or tower are out of the question, so you'll never be a "big gun" top DXer or contest winning station able to get instant replies to your CQs. But there are many other ways of being able to enjoy the hobby than chasing the rarest DX or participating competitively in contests.

It's possible to win DX awards, even using low power and modest antennas. It just takes longer. If you like taking part in contests then you can compete against yourself, trying to beat previous scores, or use them as an opportunity to log some DX that would be hard to work at other times.

Besides a less than ideal antenna, it may also be necessary to restrict the power you run so as to avoid the RFI problems that can occur with indoor antennas, or to avoid blowing your cover by causing RFI to a neighbour. This may seem like a double blow to your chances of success. But operating low power (QRP) can actually increase your fun.

The key to not being disappointed with what you can achieve with low power and a restricted antenna system is to develop realistic expectations. Compare your results to other similarly equipped stations, not big guns. Join QRP clubs and take part in QRP contests. The number of participants is smaller and the playing field is more level, making the chances of winning actually greater than if you were one of hundreds of "average" participants running 100W into dipoles or other modest outdoor antennas.

Part of the fun of amateur radio is in improving your station to get better results. Improving your station performance within the parameters of complete stealth, low visibility or whatever limits on your activity your particular situation dictates becomes part of the challenge.

For the March SARC meeting, presenter John White VA7JW will talk about the obvious problems of putting up and operating antennas in restricted or small places. Characteristics and performance limitations of small antennas will be discussed. Some sources of supply are provided and awareness of radiation hazard is mentioned.

John White VA7JW presents a slide-illustrated talk on small and stealth antennas at SARC's March 13th meeting.

John VA7JW received his basic license in 1959 as VE7AAL and his Advanced certification in 1960. He graduated in Electrical Engineering from UBC in 1965. Thereafter he worked for local telecom companies including Lenkurt Electric, MRP Teltech, Digital Courier, Glenayre and Norsat in design and manufacturing positions and retired 2002. He was active throughout those years and is more so now with time to enjoy the hobby. John is a member of the North Shore Amateur Radio Club and ORCA DXCC. He has previously given informative talks to SARC on lightning protection and space weather.



Radio-Active Jinty Reid VA7JMR

John MacFarlane VE7AXU

John was born in Kingston, Ontario. Because his father was in the Royal Canadian Navy the family moved around frequently. When John was merely a toddler they lived in various places around England, including Dorset and Hampshire. When they returned to Canada they lived in Alberta, Manitoba, Ontario, New Brunswick, Nova Scotia, Quebec and British Columbia. During his high school years John lived in Washington, DC which he remembers as being an exciting place to live. It was while living in Washington, where he came in contact with some ham radio operators, that he became interested in ham radio. He had always been interested in technical things and in taking things apart (and putting them back together again). While in his teens he listened frequently to short-wave radio.

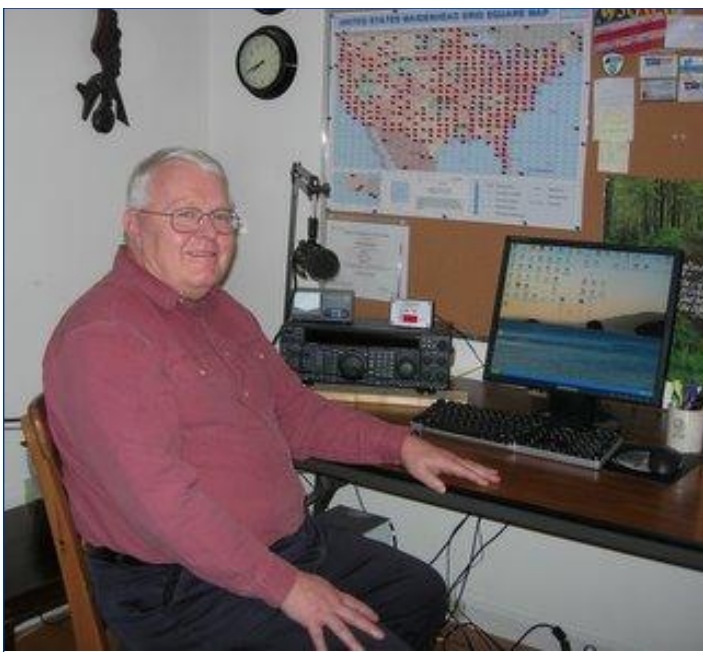
John attended the University of Halifax where he obtained his Bachelor of Science degree with an emphasis on biology and geology with a particular interest in microscopic fossils. He graduated at the age of 20. He then went on to take 2 years training with the navy where he ran radio rooms in small warships, worked in helicopter air traffic control, marine engineering, and navigation underwater weapons. By this time he had made up his

mind that someday he would become a ham radio operator.

While living in Alberta John met and married Catherine. They travelled during one year to the UK, Australia and the South Pacific. John then took a job working for Canadian Parks and National Reserves. He spent 25 years in this field and travelled across Canada with this job. He focused on the national heritage side and on visitors and their interaction with their environment. Catherine became a high school teacher. John left working for the National Parks in 1986 and he and Catherine acted as consultants in the same field of work. He then became the Director of the Maritime Museum in Victoria, BC. for the next six years. After that, he worked for the Greater Vancouver District in the Parks Department and then intergovernmental relations. As can be imagined all this work kept John very busy.

In 2002 John and Catherine moved to their present house in the Sunshine Hills in Delta. In 2005 he obtained his ham radio license with honours and passed his Morse code exam. In 2008 he passed the advanced ham radio exam. His first radios were a Yaesu FT 1000 MP and an ICOM VHF/UHF. In the same year he joined SARC and although he took some time out he later became active, for which we are all grateful as his expertise is an asset to the club. John's favourite part of ham radio is working in the digital mode and helping new hams. The most exciting thing was putting up a new antenna this past spring and making his first contact in the Solomon Islands. On John's "bucket list" (things to do before he dies) is to work the ham radio satellites, and visit St. Helena, Ascension and Tristan da Cunha in the South Atlantic. Catherine describes her husband John as constantly looking for new adventures, being a "social animal", having a good sense of humour and being a good singer, which he plays down! John is encouraging Catherine to take the Basic Ham radio exam. He likes to travel and meet and enjoy new cultures and places. He has his radio shack in the house and has not yet been banished to the bottom of the garden!

As can be seen by this article, John has eclectic interests and is always on a learning and adventure curve.





The Contest Contender

John Brodie VA7XB

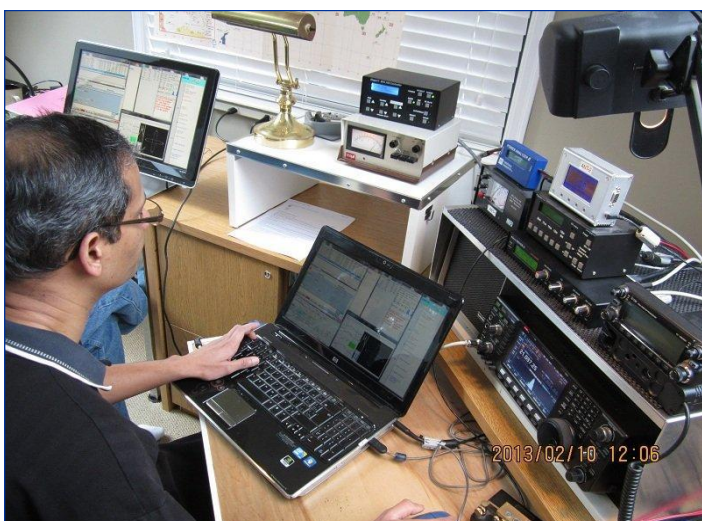
Operator Trainees Make the Big Leap

A few of the operator trainees, learning the digital ropes under the nurturing eyes of Brett VE7GM and John VA7XB, made a huge leap in proficiency the weekend of Feb. 9/10 during the CQ WW WPX RTTY contest. Brett and John, fully aware that they still have much to learn to earn their full competency stripes, nevertheless have been able to pass on some technique learned in past sessions with the masters, Jim VE7FO and Fred VE7IO.

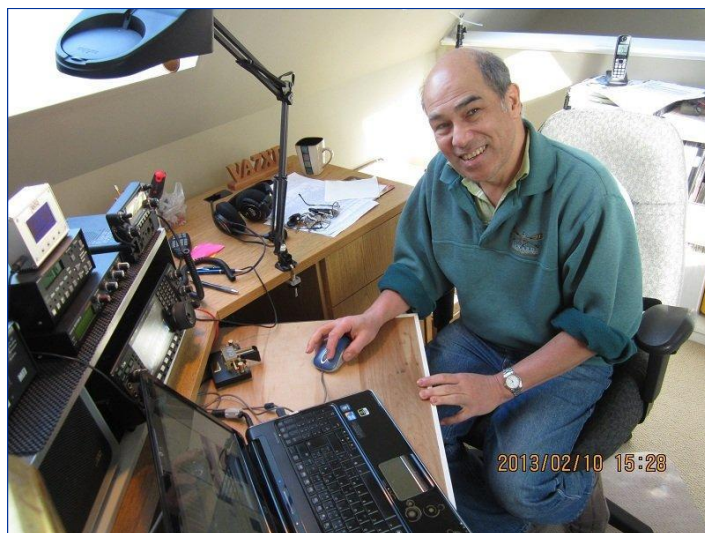
In this contest, the coaching and practice started to pay big dividends. Previous contests with these new ops have typically resulted in a couple hundred contacts, as much of the time was spent in explanation and slow, careful instruction rather than competing. This time the startup period was minimal and nearly all operators had the confidence to move on from "Search and Pounce" to "Run" mode, which resulted in a significant increase in the number of contacts and thus, the final score. The RTTY team consisted of Sean VA7CHX, Jinty VA7JMR, Kapila VE7KGK and Anton VE7SSD plus Brett and John. 444 contacts were made over about 10 total hours of operating over 2 days. This is not a score to boast about, but it does reflect the significant improvements to skill and confidence compared with the initial training events.



Jinty VA7JMR concluded her shift in style by confirming contact with ZS1LS (South Africa). The activity came thick and fast once our station was spotted on the DX clusters leading to modest pileups. All ops managed to stay calm, sort through the confusion and complete the contacts without serious boo-boos. Conditions were good, and all ops experienced the thrill of working other continents. During the morning the beam was pointed north to access Europe and North Africa.



What was more impressive this time was that Kapila VA7KGK achieved the enviable rate of 114 contacts per hour over a 10 minute span and most were making 60-70 contacts an hour over longer periods of time.



Later on, it was turned east and southeast to catch Central US and South America, then finally west for the JA's and Asia. 15 meters was the most productive band,



with fewer contacts made on 10, 20 and 40 m. Having no 80 m antenna, VA7XB's station was inactive later during

the evening hours. The exchange for this contest was simple - a signal report (always 599) followed by a serial number. To qualify as a bona fide contact, the exchange from the other station including the callsign, had to be logged accurately within the few seconds of the contact.

For this contest we paid no attention to anything but making contacts. Our claimed score was 251,750, very modest by comparison with the score of serious contesters. Nevertheless, the group can feel proud of this accomplishment, and now focus on improving proficiency, strategy and tactics to increase the score at the next event.

Photo 1: Kapila VE7KGK

Photo 2: Jinty VA7JMR

Photo 3: Anton VE7SSD

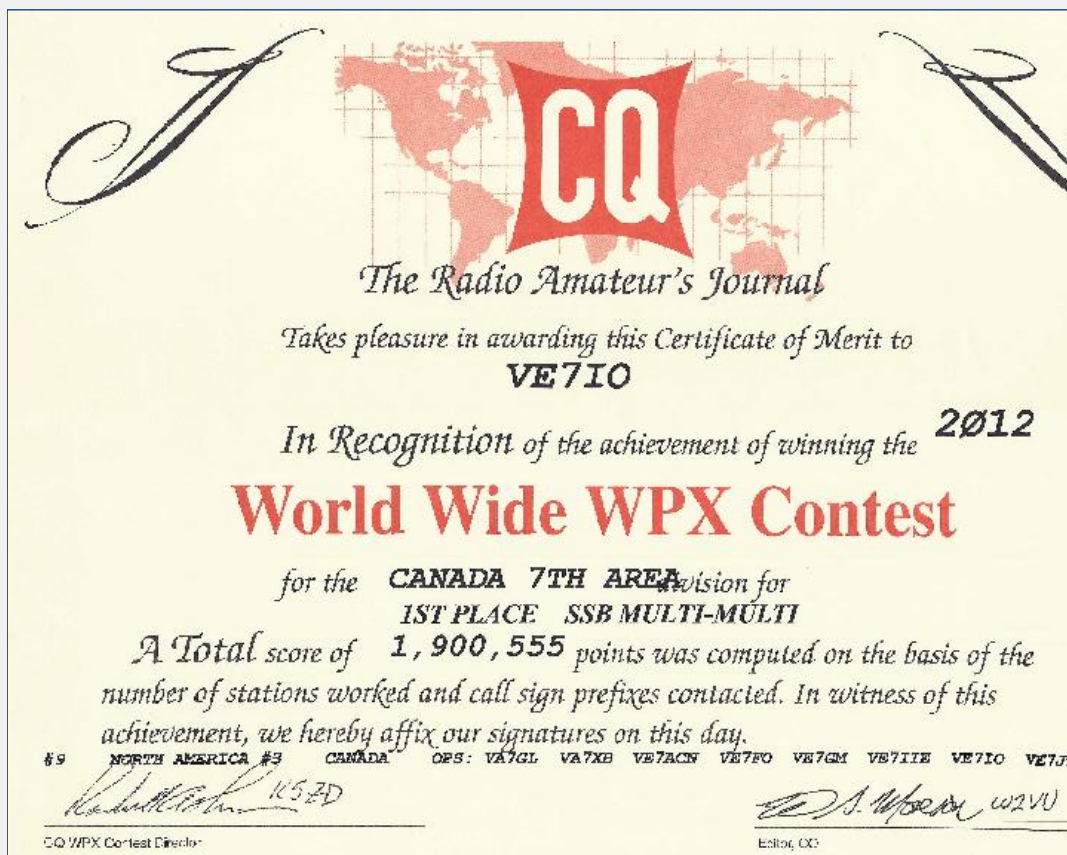
Photo 4: Sean VA7CHX

CQ WW DX Contest

As you can see from the award we did very well.

Congratulations to all the ops for making this happen and hope we can do it again soon.

~ Fred VE7IO





SEPAR Report

Kelvin Hall VA7KPH



SEPAR - TRAINING FOR EMERGENCIES

Emergency radio communications for the City of Surrey, Surrey Fire Services is the basic mandate of SEPAR. We need to be well trained and capable of responding to any emergency in an effective and efficient manner. We are the communication professionals.

Training requirements are being modified to meet emergency response requirements. With the emphasis in communications changing to digital modes we need to update our skill set to meet the changing demands. Each SEPAR member is now required to meet a level of training before taking on additional responsibilities in the EOC SEPAR radio communication role. This will ensure that we continue to achieve the high standards that we have set for ourselves and demonstrated to others.

Training in Grab & Go (G&G) kit set-up, radio operations and kit take down started in January 2013 and will continue through April 2013. The kits set-up of radios and VHF/HF antennas and debugging problems is on-going and is a vital part of G&G kit deployment.

During January and February SEPAR members participated in workshops in the use of the Icom 2820H and the Kenwood TS 480 radios in the G&G kits. Debugging of problems with the G&G kits was a part of the exercise as issues that arise in the field need to be addressed to ensure we can continue with radio communications with as little interruption as possible. We will be repeating these sessions in March and April.

Kudos need to be given to Don VA7GL for the significant amount of work that he put into the creation of the workshop materials and the quality of presentation at the

workshops. Don held everyone's attention as he worked everyone through the complexities of the radios and raised their comfort level for operating the radios.

In coming months training will be provided in Radio Room positions, duties and the interface with the EOC. On-going will be the ICS 100 and 200 courses to assist with the understanding of how SEPAR fits into the greater emergency response role. Formal training will continue throughout the year to enable us to be an effective, efficient and professional part of the City of Surrey's Emergency Program.

SEPAR is recruiting volunteers for this essential community service and if you are interested I would be pleased to meet with you to provide more information. You may contact me at VA7KPH@separs.net

We need to remember that we do this training because there is always the real possibility that a major event will occur. It is not a matter of IF a major disaster will occur but WHEN.

SEPAR Meetings

Third Thursday of each month starting at 1900 hrs

Fourth Saturday of each month starting at 0900 hrs

Location and event schedule can be found at separ.shutterfly.com – click on the calendar tab

What's Coming Later in 2013

- April - Bill Gipps VE7XS on his Lesotho, Africa DXpedition.
- May - our annual Foxhunt plus (at the general meeting) preparations for Field Day and how you can do your part to increase our 2013 FD score by another 50%

- June - our AGM and final countdown to Field Day, which is on the weekend of June 22/23

Also planned is a guided tour of SARC's new repeater installation located on the roof of a 36-story hi-rise -the view is great!.

ON THE LINE

BY JULIAN MACASSEY, N6ARE

NEW AND EXCITING TELEPHONE TECHNOLOGY

Text And Graphics Over The Phone

Although most of the traffic that goes over phone lines is regular speech, there is an ever increasing amount of traffic that consists of text, data, and graphics. Text down phone lines is far from new. Stock prices have been sent down phone lines on a stock ticker almost as long as there have been telephones. Thomas Edison, besides inventing many parts of the modern phone, also held patents on stock tickers. The first "phone lines" just carried Morse code, then voice and text. Today, there are many ways to send text and some of them are very fast, sending words much faster than they can be read.

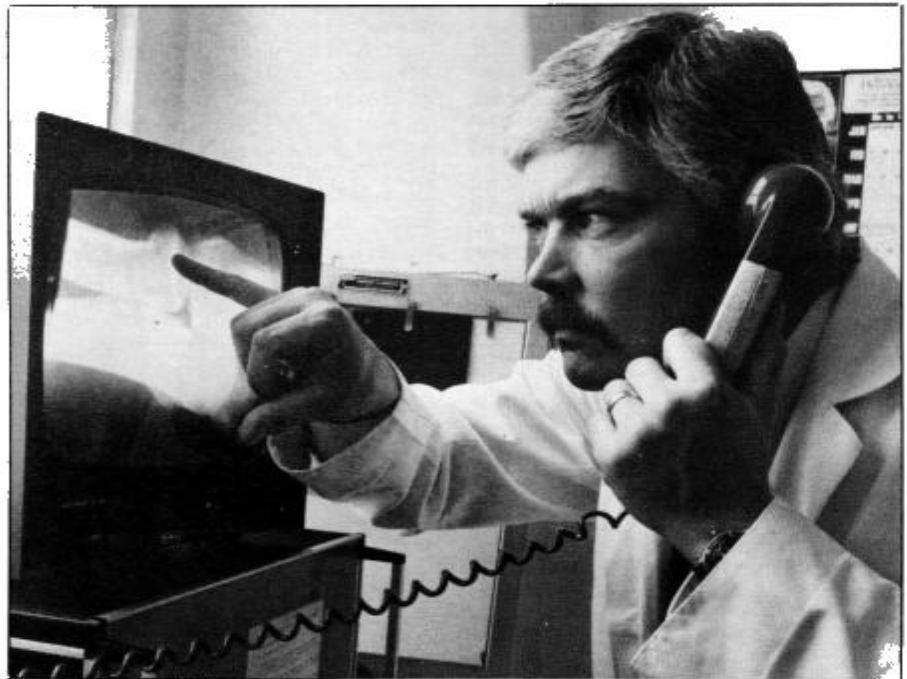
The old stock ticker seen in the movies living under a bell jar was a simple device. It consisted of a wheel covered in raised type which spun around and, when it came to the right letter, struck a piece of paper tape. It had two wheels, one for letters and one for figures and punctuation. The ticker was a receive-only device and worked very slowly. It did, at least, supply New York with tons of waste paper that could be thrown out of windows for "ticker tape parades."

The first send and receive machine that printed on pages, not lines, was the Telex. This machine is still in extensive use today. The news bureaus use versions of these machines to send news reports to newspapers and TV stations. Telex is landline based RTTY, sometimes called TTY. It is also known as teletype. It is identical to classic RTTY in most respects. It uses Baudot or Murray code signalling. The character set on a Telex is limited to 32 characters, with no shift available between upper and lower case characters.

The Telex system has over 1.5 million subscribers worldwide and is a direct dial network, just like the telephone. If you dial someone's telex number, you will be connected directly to their machine and can, if you wish, carry out written two-way conversation—just like RTTY. Most Telex traffic is written before transmission in order to speed up the flow of traffic.

The Telex baud rate is 50 baud. The standard method of signalling down a Telex line has been by reversing the polarity of the line for mark and space. These days, most Telex systems use audio tones (Audio Frequency Shift Keying), the same system that is used on RTTY.

Telex equipment today has gone away from the old electro-mechanical machines, such as the Teletype and Creed. Most Telex terminals today are small computers with memory to store incoming messages, CRTs to edit text, and dot matrix printers. This is the same move that has been made with RTTY.



A doctor examining an x-ray sent to him over the phone line from a distant hospital via the "IMTRAN" system.

In most countries of the world, Telex is run by the telephone company, who is often also the postal service. Here in the U.S., Telex service is run by Western Union, ITT, and RCA. Although Telex is old, it is the only worldwide text landline system. It is extensively used for international trade and travel. Most large hotels and businesses have a Telex machine.

British Telecom, the British telephone company, which is one of the most innovative companies in the world when it comes to text and graphics via phone line, has just committed themselves to spending over \$100,000,000 over the next few years to upgrade their Telex network. Western Union, on the other hand, is doing their best to discourage use of Telex. When a potential customer calls Western Union requesting service, they are usually sold something called "Easy Link" instead. This is not Telex; it is electronic mail. If you want Telex, demand it from Western Union or go to another carrier who is willing to supply it.

Another point-to-point text service is called TWX (pronounced twix), sometimes called Telex II. It works in much the same way as Telex but uses ASCII, which gives a full keyboard with upper and lower case. It is also twice as fast as Telex; its speed is 110

baud. Unfortunately, TWX service is limited to the U.S.

The most up to date system for sending text is called Teletext. This is a point-to-point system using regular phone lines and sending fully word processed text at 2400 baud. At this speed, a full page of text takes less than seven seconds to send. Teletext machines can store text and send it out when the phone rates are cheaper. At this speed, and coupled with the fact that voice lines are cheaper than Telex lines, Teletext is the wave of the future.

Many companies offer forms of EMAIL. This is simply a large mainframe computer somewhere that subscribers dial into and leave messages for each other. If you think you have a message, you have to call in to the system to find out. With Telex, TWX, or Teletext, the message arrives at your machine immediately and live two-way communication is possible. There are several EMAIL systems, such as Compuserve, The Source, Easy Link, GTE Telemail. If you are a subscriber to one, you cannot leave a message to a subscriber on another. Some systems have a means of sending messages to other systems overseas, but not all. EMAIL is, at the moment, tricky to use and not very versatile.



Tech Talk

John Brodie VA7XB

A Better Fox Hunting Antenna

The January 2013 edition of QST contains an article titled "A Uniquely Tuned 2 Meter Transmitter Hunting Loop". The loop, which has good directional properties, takes the place of the tape measure beam. Its advantage is that it is smaller and lighter. Like all tuned circuits, it consists of an inductor and capacitor, which you tune to resonance at or near the foxhunt frequency of 146.565 MHz. The loop forms the inductor, and the capacitor is comprised of an insulated wire built into the interior of the loop. Its ingenious design effectively incorporates two capacitors in series.

Recall that the capacitance of two capacitors in series is always less than the least. By sliding the inside conductor around the loop, the ratio of the two capacitance values is changed with the result that the resonant frequency of the tuned circuit is shifted. Once tuned, the loop requires no further adjustment. The resonant loop is inductively coupled to the radio by a smaller loop connected to the coax and a balun.

The balun is nothing more than a few turns of RG-58 coax, which gives the antenna a more symmetrical reception pattern. Construction appears straightforward.

I plan to construct a loop antenna. Should anyone else wish to build

one, I am willing to assemble sufficient parts for others to do so and make room in my crowded garage for a project day in April. From what I have seen the cost of each antenna will be just a few dollars.

However, I need to know the number of participants at least month prior to the Foxhunt, which means by April 12th so parts can be purchased and the construction completed and tested before the event. Contact me at va7xb@rac.ca if you wish to make a loop antenna.

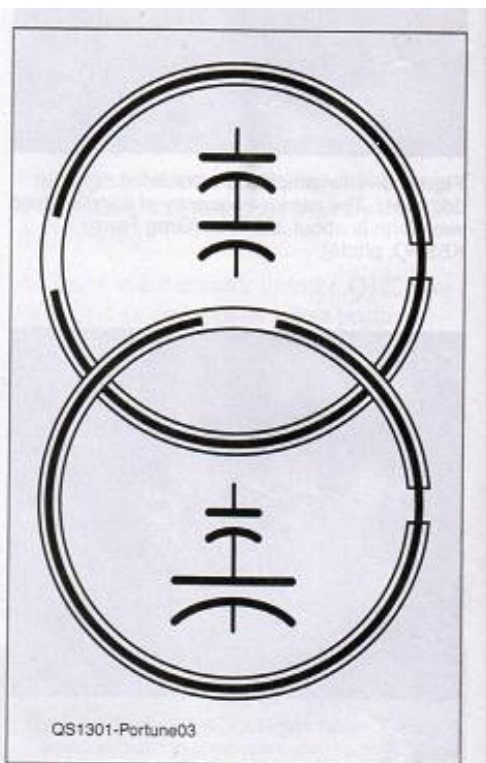


Figure 3 — Cross sections of the loop with coax inner conductor and dielectric from RG-8X coax in two different positions. Maximum capacitance is with the inner conductor as in the top loop.

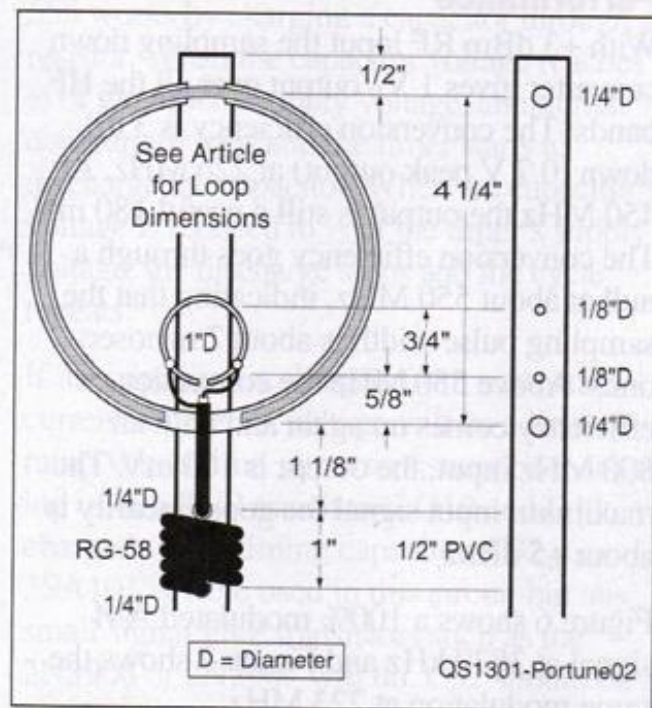
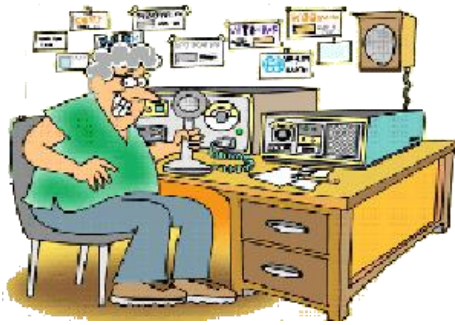


Figure 2 — The transmitter hunting loop. Note that a tuning capacitor is formed by the tubing of the loop itself and an inserted length of the inner conductor and dielectric from RG-8X coax.

Images are courtesy of QST



The in-house swap meet was a success!



*Do you have a photo or bit of club news to share?
Something to sell or something you are looking for?
Email it to ve7ti@separs.net for inclusion in this column.*

QRM ...from the Editor's shack

SDR Touch turns tablet/phone into SDR

Ham Radio Science reports on **SDR Touch** that you can use your Android tablet/cell-phone and a cheap RTL2832U as a Software Defined Radio.

You can plug a \$20 RTL2832U stick into your Android 4.0 devices' USB port and SDR Touch allows you to tune and decode the audio from the RTL2832U stick.

Watch SDR Touch

Read the Ham Radio Science story at URL:

<http://www.hamradioscience.com/android-meets-the-rtl2832u/>

SDR Touch at URL:

<http://forum.xda-developers.com/showpost.php?p=37680134&postcount=51>

And a video at URL:

http://www.youtube.com/watch?v=KBygxaLthZ8&feature=player_embedded

FreeDV by KN0N

In the past 20 minutes I have been listening to stations in Albuquerque and Colorado Springs on 14.236 making digital voice QSOs using [FREEDV software](#) which is built around the [Codec2 DV codec](#). It's a similar concept to DSTAR, but in this case the codec was developed from the ground up to be freely usable on simple computing devices. That is, you can run it on a PC in Windows or Linux using standard sound-card hardware- no proprietary chips (like AMBE) are needed.

Codec2 uses a 1400 bps stream, allowing for clear voice comms in only 1100 hz of bandwidth. One-half of the space used by SSB. Look for a live demo at an upcoming MBARC-Digital Group meeting.

Check out the video at URL:

http://www.youtube.com/watch?feature=player_embedded&v=ovAJBkOWKZ4

Burnaby Amateur Radio Club Swap Meet

The 2013 Swap Meet is Sunday, March 17th at the Sullivan Community Hall in Surrey from 10:00am until 1:00pm.

<http://ve7bar.org/swap-meet/>

General Admission: \$5 (children 12 and under are free)

Vendor Tables: \$20 (includes vendor door admission for 1 person, helpers are \$5.00 each)

To reserve a Vendor Table please contact Lou, VE7CGE at loucge@telus.net or club@ve7bar

Communications Academy 2012

Registration for this year's Communications Academy went live on Saturday, Feb. 17. We have another great lineup of topics and speakers, so this is a must see event! The Web page is www.CommAcademy.org. Peruse the offerings and then click on the Register Online link. A paper registration form is available if you prefer not to register or pay online.

Hope to see you there. Did you see the ad in the March QST, on page 142?

Marina Zuetell, N7LSL
ARES District M Asst. Section Emergency Coordinator
W. WA. Medical Services Communications
206-524-6567
n7lsl@arrl.net

For Sale

I have a Uniden Bearcat 296D handheld scanner that is collecting dust. The scanner works perfectly and I still have the manuals and cables. I'd be happy to sell it for \$50 or best offer, as it's not serving me anymore (originally paid many hundreds of dollars).

Sean.Hardiman@me.com



Page 13—News You Can Lose

The Lighter Side of Amateur Radio

Ham Radio in the Movies and TV

The Numbers Station - Official Movie Trailer

The SWLing.com site reports that the trailer of the movie The Numbers Station has been released.

The report posted by Thomas says "In the movie, John Cusack's character, Emerson, has been given the task of protecting Katherine (Malin Akerman), the operator of a shortwave Numbers Station that broadcasts encrypted messages to operatives. When the station is compromised, in a surprise attack, they must work together to secure it and prevent disaster."

Further information at URL:

<http://swling.com/blog/2013/02/finally-the-official-trailer-for-the-movie-the-numbers-station-with-john-cusack-and-malin-akerman/>

Watch The Numbers Station Official Trailer #1 (2013) - Malin Akerman, John Cusack Movie HD at URL:

http://www.youtube.com/watch?feature=player_embedded&v=rFZS3spi0Xw

Ham Radio in Kraft Velveeta TV ads

Kraft are using amateur radio in their TV ads to promote their Velveeta Mac and Cheese product.

Watch That Ham Radio Guy—VELVEETA Macaroni & Cheese Velveeta at URL:

<http://www.ispot.tv/ad/7dy8/velveeta-ham-radio-guy>



Wanted

Rob VE7CZV still needs an auto-tuner for his HF rig, specifically for 80m.

If you have or know of one that is available at a good price, please contact Rob via robgil@telus.net

CQ... CQ... CQ

For Sale

\$350.00

Almost brand new... Comet CAA-500 SWR antenna analyzer, shown on the right. Costs \$450 at RadioWorld.

This is a great portable instrument, for HF, VHF (including 220 MHz) and UHF.

Why am I selling it? Because I want to purchase an instrument that can plot graphs.

John VA7XB va7xb@rac.ca
or 604-591-1825





RAC News Radio Amateurs of Canada

RAC Director for British Columbia/Yukon

Congratulations are extended to Mr. William (Bill) Gipps, VE7XS who was recently acclaimed as the RAC Director for British Columbia/Yukon. Mr. Gipps ran unopposed, eliminating the need for a balloted election. His term as Director will be for two years starting January 1, 2013 and ending on December 31, 2014.

Mr. Gipps has been an amateur operator since 1989 holding call signs VE7XS, VE7ISV, VA7XXI, V31BG and has been involved in many aspects of the hobby. He recently travelled as a team member with call 7P8BG on a DX-Pedition to the Kingdom of Lesotho.

RAC Director for Atlantic

Congratulations are extended to Mr. Everett Price, VO1DK who was recently acclaimed as the RAC Director for Atlantic. Mr. Price ran unopposed, eliminating the need for a balloted election. His term as Director will be for two years starting January 1, 2013 and ending on December 31, 2014.

Mr. Price has been an amateur operator over over thirty two years and has been involved in many aspects of the hobby. He can also frequently be heard as marine mobile enjoying his sailing sloop "IdleEase" in eastern Newfoundland coastal waters.

RAC Director for Midwest

Congratulations are extended to Mr. Derek Hay, VE4HAY who was recently appointed as the RAC Director for Midwest. Mr. Hay has generously stepped forward to continue his RAC Director's role after there were no eligible nominees resulting from a second call for nominations according to the Constitution, Section 7, Article 6 i). His term as Director will be for two years starting January 24, 2013 and ending on December 31, 2014.

Mr. Hay has been an amateur operator since 1990 and has been involved in many aspects of the hobby. Derek has been Chairperson for the RAC Administration and Finance Committee for the past two years. This time of year you will find Derek making calls of a different kind from the hack at the curling rink.

RAC Bulletin 2013-004E - RAC Field Organization seeking Secretary

The RAC field Organization National Secretariat and the CFSO Council is seeking an individual to join the

organization as Secretary. Duties for the position are:

- Recording the minutes of all monthly teleconferences.
- Distribution of minutes to Section Managers, Advisers and members of the groups in a timely manner.
- Maintain control of relevant documents.
- Prepare monthly teleconference agendas in consultation with the CFSO
- Maintain an up to date nominal roll of all active participants.

If you are an individual who would like to apply for this important volunteer position, please contact RAC

Brit Fader Scholarship Trust Announces Call for Applications

The Brit Fader Scholarship was established in 1993 by the Halifax Amateur Radio Club and endowed through the generosity of Club members and Radio Amateurs throughout the Maritime Provinces of Canada. This scholarship is intended exclusively for post-secondary educational use, to provide assistance with the cost of tuition, room, board, books and/or other fees essential to the advanced education of the recipient. The amount of the 2013 award will be \$1000.00.

The applicant must be a Canadian Citizen, but without regard to gender, race, national origin, handicap status or any other factor and must be performing at a high academic level.

Applicant must, hold an active Basic Class or higher grade of Canadian Amateur Radio license.

This Scholarship will be provided for attendance at an accredited Canadian post-secondary technical school, college or university, with preference given to applicants who have been accepted into a program in the field of electronics or electrical engineering, or related area.

Application submissions must be postmarked no later than July 12th, 2013.

A zipped application package (Criteria; Application Form; Reference Form) is available for down-loading from the HARC website at www.Halifax-arc.org. Follow the link to the Brit Fader Scholarship from the Home Page under Education.

The SARC Calendar ...places to be in Surrey for Amateur Radio in the month ahead

March 2013						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
24 	25	26	27	28	1 Weekly SARC Breakfast 8:00 ABC Restaurant 74th & King George Blvd.	2 CONTEST: ARRL International DX SSB
For details on all SARC events, go to ve7sar.net For details on all SEPARS events, go to separ.shutterfly.com/calendar						
3 CONTEST: ARRL International DX SSB	4	5 SEPAR NET 7:30 SARC NET 8:00	6	7	8 Weekly SARC Breakfast 8:00	9 CONTEST: North America RTTY Sprint
10	11	12 SEPAR NET 7:30 SARC NET 8:00	13 SARC Monthly Meeting	14	15 Weekly SARC Breakfast 8:00	16 CONTEST: BARTG HF RTTY
17 CONTEST: BARTG HF RTTY Burnaby ARC Swap Meet	18	19 SEPAR NET 7:30 SARC NET 8:00	20	21	22 Weekly SARC Breakfast 8:00	23
24	25	26 SEPAR NET 7:30 SARC NET 8:00	27 SARC Exec Meeting	28	29	30 Contest CQ WPXZ SSB
31 Contest CQ WPXZ SSB	1	2	3	4	5	6
Contest Details: http://hornucopia.com/contestcal/contestcal.html						



QRT John Brodie VA7XB

Get Ready for SARC Foxhunt in May

SARC's annual RDF (radio direction finding) Foxhunt and barbeque are again planned for Saturday May 18th at Crescent Park in South Surrey. As always we can count on some expert help with the technical stuff from Amel VA7KBA of BC Radiosport. It will be a 2m event as this is the capability that most members have. Participants from SARC and other clubs in the Lower Mainland compete to be the first to locate up to 5 transmitters hidden in the park over a 2-hour period. The more skilled participants often find all 5 foxes whereas the beginners may find only one or two, or perhaps none at all. Skill and practice are necessary for sure, but the right equipment is also critical for success. Whether or not you compete, you are welcome to join us at the barbeque. There is no charge for the Foxhunt but we ask \$10 to cover the cost of food. If you plan to participate you must notify Anton VE7SSD at jamesadf@shaw.ca and let him know whether you plan to attend the foxhunt or BBQ or both.

This month, I am going to summarize a few sources of information on Fox Hunting devices and suggest one of them as a club project.



In past years, we have recommended the tape measure beam (above) described at http://theleggios.net/wb2hol/projects/rdf/tape_bm.htm as a popular yagi-type antenna for RDF, used in conjunction with a hand held 2m radio.

Complete construction information can be found in this article. It can be made cheaply, using common parts, most of which are available from your building supply store. To get started on RFD you can't go far wrong if you make it your first construction project.

Below is a photo of my antenna, radio and attenuator but you are encouraged to use your own ingenuity to come up with an arrangement that suits your equipment and style.

While the directional properties of the tape measure beam are excellent and will likely lead you in the right direction when the fox is far away, the problem arises when you get close to the quarry and the signal becomes stronger. Then the directionality becomes confused as the signal overwhelms the radio. That is why you need a signal attenuator of some kind. Attenuators are easily constructed and several types have been successfully used. One of the most popular - and the one I recommend - is the K00V offset attenuator. This device requires you to tune your radio either 2 MHz or 4 MHz (depending on the model attenuator you acquire) above or below the fox transmitter frequency. Details can be found at:

<http://www.homingin.com/joek0ov/offatten.html> and kits can be purchased at <http://www.west.net/~marvin/k0ov.htm> at a cost of \$24 each. It is up to you to figure out how to mount the attenuator in a box and affix it to the antenna and radio. Another option is to purchase a complete attenuator with enclosure and connectors, ready to go, from <http://www.arrowantennas.com/main/4ofha.html> for \$59 plus shipping.

Ready to build a new and better antenna for the hunt? Turn to page 10 for details.

